# NOTE VII.

# ON DACTYLOMYS DACTYLINUS AND KANNABATEOMYS AMBLYONYX.

BY

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March 1891.

(Plate 7).

*Dactylomys* is the name of a genus of South-American Rats, created in 1838 by Mr. Is. Geoffroy-Saint-Hilaire [1]) for the reception of *Echimys dactylinus* of Mr. E. Geoffroy-Saint-Hilaire (1817). Mr. Is. Geoffroy bestowed the specific title *typus* on that animal and herein all the later authors [2]) have followed him, although according the rule of priority it would have been more correct to retain the name given by Mr. E. Geoffroy and to call the animal *Dactylomys dactylinus*. But as it perhaps is a matter of euphony and as Is. Geoffroy's name *typus* once had gained the victory I followed in my paper in the Notes from the Leyden Museum, 1887, p. 224, the bad example of my predecessors.

Natterer brought home from his journeys in South-America two rats, described [3]) by Andreas Wagner, as belonging to the mentioned genus, under the name *Dactylomys amblyonyx* Natterer, with the following short diag-

1) Compte rendu des séances de l'Académie des Sciences, 1838, p. 888; Annales des Sciences naturelles, Seconde Série, T. X, 1838, p. 126, and Magasin de Zoologie, 1840, p. 26.

2) Except Dr. Trouessart, see Catalogue des Mammifères vivants et fossiles, Rongeurs, 1881, p. 124.

3) Archiv für Naturgeschichte, 1845, p. 146.

nose: »*Dactylomys* supra flavus, nigro-adspersus, subtus pulchre ochraceus; unguibus dilatatis; cauda tota pilis vestita." The named author published later on[1]) a more detailed description based upon the same type-specimens from Natterer's collections. In that paper Wagner makes no mention of skull or dentition. The very exact description of the external parts ends with the following terms: »Natterer erhielt 2 Exemplare, Männchen und Weibchen, aus den Waldungen von Ypanema (Provinz San Paulo). Diese Thiere leben auf Bäumen, klettern sehr gut und tragen in Baumhöhlungen Vorräthe von Samen und Früchten für den Winter zusammen. Das Weibchen war mit einem Jungen trächtig."

As far as I am aware no other specimens of this species have been brought over to Europe, or have been described or mentioned up to the year 1867; in the interim Wagner's paper was the only source. *D. amblyonyx* was unknown or ignored by Mr. Deville, who in 1852[2]) wrote: »il n'existe dans ce genre (*Dactylomys*), qu'une seule espèce..... caractérisée par Mr. Isidore Geoffroy-Saint-Hilaire, *Dactylomys typus* Is. G. S. H."

In 1872 Mr. R. Hensel[3]) read a paper entitled: »Beiträge zur Kenntniss der Säugethiere Süd-Brasiliens", before the members of the »Akademie der Wissenschaften zu Berlin", after having shortly mentioned in 1867[4]) his specimens of *Dactylomys amblyonyx*, and after having published in »der Zoologische Garten 1872", a paper concerning more especially the biology of the mammals observed or collected by himself in Southern Brazil. He explained in a very satisfactory way why specimens of *Dactylomys amblyonyx* are so rarely to be found in European Musea:

1) Abhandlungen der II. Classe der Kön. Akademie der Wissenschaften, V. Bd., II. Abth., p. 304.

2) Revue et Magasin de Zoologie, 1852, p. 556.

3) Abhandlungen der Kön. Akademie der Wissenschaften zu Berlin, 1873; Der Zoologische Garten, 1872, p. 80.

4) Sitzungsber. der Gesellschaft naturforschender Freunde zu Berlin, 1867, p. 21.

»Diese Fingermaus (oder Bambusratte) lebt vorzugsweise an den Ufern der Flüsse, wo sie mit baumhohem Bambusrohre dicht bewachsen sind. Da, wo die jungen Schösslinge desselben abgefressen sind, kann man das seltene Thier vermuthen, das bei Tage vielleicht stets verborgen ist. Fährt man dagegen in windstiller Nacht und bei hellen Scheine des Vollmondes in der Canoa unter jenen Bambusdickichten hin, so hört man bald hoch in denselben einen merkwürdigen Schrei, den man unbedingt einem Vogel zuschreiben sollte. Bei der grössten Ruhe und Aufmerksamkeit entdeckt man wohl zufälligerweise gegen den hellen Nachthimmel und hoch in den Kronen der Bambusen das kleine rattenähnliche Thier, wie es auf den schwankenden Zweigen mit blitzähnlicher Schnelligkeit auf und nieder klettert. Man schiesst und wartet bis zum Morgen, um zu sehen, ob man getroffen hat, denn in die Tiefe des Dickichts vermag bei Nacht Niemand einzudringen; da finden wir einzelne Haare oder Ueberreste des Körpers am Boden und gewinnen die traurige Ueberzeugung, dass unterdess eine Beutelratte uns zuvorgekommen ist. Für den kundigen Leser wird es keine weiteren Erklärung bedürfen, weshalb das Thier so selten in unseren Museen ist." Very interesting is the following observation: »Merkwürdig ist die Eigenthümlichkeit, dass die Fingermaus die glatten Rohrstengel bei dem Klettern zwischen die zweite und dritte Zehe der Hinterfüsse nimmt und dass darnach diese beiden Zehen gebaut sind." Like Natterer so Hensel observed: »(zwei) trächtige Weibchen hatten nur je einen Fötus."

Hensel collected 2 skeletons, 2 skulls, 2 foetus and 3 specimens in spirits. Skeleton with 13 ribs, 6 lumbares, 3 sacrales and 36 (or more) caudales. He observed [1]): »Nach der Form des Schädels und der Zähne scheint die Gattung *Dactylomys* mit den Hystricinen verwandt zu sein, unter

1) Sitzungsbericht der Gesellschaft naturforschender Freunde zu Berlin, 1867, p. 21.

denen sie sich zunächst an *Chaetomys* anschliessen würde." For the rest Hensel said not a single word concerning the remarkable dentition of *D. amblyonyx* nor in this nor in his other papers on the subject.

In 1888 Prof. H. Winge wrote a paper on »Jordfundne og nulevende Gnavere fra Lagoa Santa, Minas Geraes, Brasilien." He had two specimens of *D. amblyonyx* from Rio de Janeiro and Porto Alegre; skull and dentition (partly) figured on plate VII, head and feet on plate VI. As I cannot understand Winge's language I am not able to tell what he stated about the species in question.

Dr. E. A. Göldi from Rio de Janeiro relates [1]) that he personally collected specimens of *D. amblyonyx* and confirms the biological observations made by Dr. Hensel. Nothing about dentition.

The dentition of *D. typus* (*dactylinus*) has been very insufficiently described and figured — I remarked it already in 1887 — meanwhile the dentition of *amblyonyx* has not sufficiently been studied and described — as I just pointed out — and therefore I think that a very accurate and minutely made description of both dentitions may be called a desideratum; the conclusion we arrive at will be unexpected and surprising.

*dactylinus* [2]): the series of molar teeth of opposite sides of the upper jaw very converging and nearly meeting in front, of the lower jaw also converging but in front not surpassing half the distance of the hindmost molars. In both jaws all the enamel folds are directed backward under an angle of about 45°. Each molar divided into two separate lobes; those of the upper jaw in the form of a tuning-fork; in those of the lower jaw (except in the premolars) the foremost lobe presents more the form of a V, meanwhile the other lobe

1) Der Zoologische Garten, 1889, p. 225. Die Bambusratte oder brasilianische Fingerratte, *Dactylomys amblyonyx* Natt.

2) Skull of the specimen discussed in the Notes from the Leyden Museum, 1887.

is a simple elongate enamel fold. The lower premolars present a quite different shape, although like the other molars each divided into two separate lobes, for the anterior lobe is a very short and simple enamel fold, the posterior lobe, however, shows the same enamel folds (one V-shaped and one simple elongated) like the other lower molars but here united together by a small enamel bridge.

*amblyonyx*[1]): the series of molar teeth of opposite sides of the upper jaw very slightly converging, of the lower jaw not converging but each series in the middle very slightly curved. In both jaws the enamel folds are nearly perpendicular to the molar series. Molars not divided into two separate lobes (except the lower premolars); the lobes on each tooth of the upper jaw present two very irregular tuning-fork-like folds, united together by a small enamel bridge. The lobes on each tooth (except the premolars) of the lower jaw present an anterior V-shaped fold and a posterior elongate one, united together by a small enamel bridge. The lower premolars show about the same shape and folds like those parts in *dactylinus*, the anterior fold, however, is relatively and absolutely larger than in that species.

The difference in the form of the enamel folds of the dentition in the two named species is so great as to compel me to form a new genus for the reception of *amblyonyx*. This genus I propose to call *Kannabateomys*[2]).

*Dactylomys dactylinus* and *Kannabateomys amblyonyx* present moreover in their bony parts as well as in their external characters some differences, as appear to me of more than specific value. So the upper molar series are much more pushed forward in *dactylinus*, and the nasal bones in that species are more elongate and remember what is to be found in *Cavia*, *Dolichotis*, *Lagidium* and *Lagostomus*, meanwhile in *amblyonyx* the named parts

1) Skull of an adult specimen in the Leyden Museum recently procured from Brazil.

2) Κάννα, reed, cane and βατέω, I mount.

agree much more with *Lasiuromys*, *Loncheres* and *Echimys*; *D. dactylinus* has a typical rat-tail, at first sight naked, so extremely small and short are the few hairs upon it; *K. amblyonyx* on the other hand has a very hairy tail, more like *Lasiuromys villosus* and ending in a tuft of long hairs like in *Loncheres hispida.*

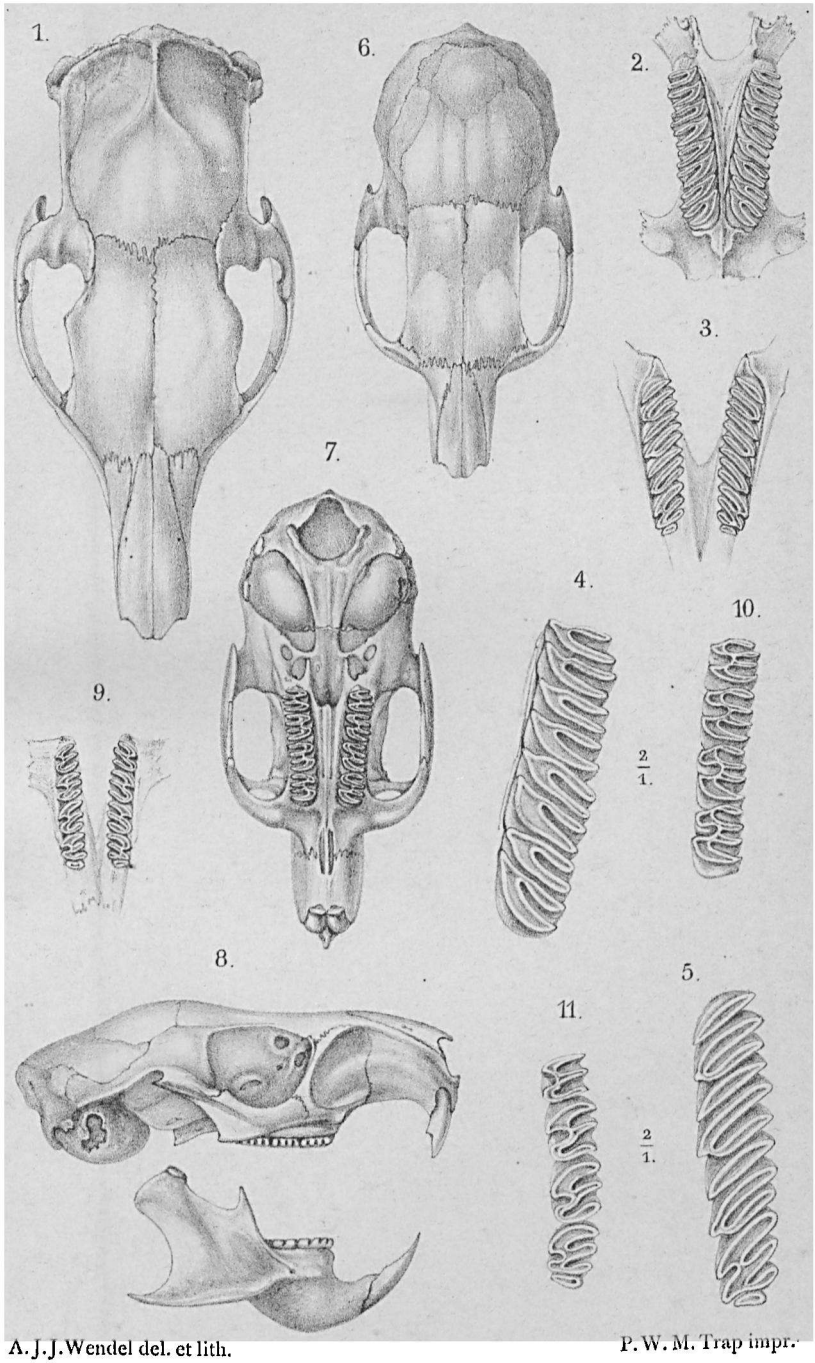
It seems to me very puzzling that *amblyonyx* up to this date always has been regarded as belonging to the genus *Dactylomys* and I think that lack of material has been the mere reason why it not rather has been enregistered as a *Loncheres* with some species of which genus — f. i. with *Loncheres hispida* — it has indeed much more in common (in external characters, in shape and hairiness of tufted tail, in size, in form of skull, in form of bony palate, in color of the molars, a. s. o.) than with *Dactylomys dactylinus*, notwithstanding *L. hispida* has spiny hairs and sharply pointed curved claws.

Some measurements of the skull of an adult specimen of *Kannabateomys amblyonyx* in our Museum:

| | | |
|---|---|---|
| Length of skull | 58 | Mm. |
| Width between zygomata | 28.5 | » |
| Length of nasal bones | 16 | » |
| » » upper molar series | 14 | » |
| » » lower » » | 15.5 | » |
| Diastema upper jaw | 12 | » |

The molars of *Dactylomys dactylinus* are white colored, those of *Kannabateomys amblyonyx* reddish brown; in both species the incisors are smooth and orange colored.

Habitat of *Kannabateomys amblyonyx*: Brazil, Province San Paulo (Göldi), Ypanema (Natterer), Prov. Minas Geraes (Museum at Rio de Janeiro, vide Göldi, l. c. p. 230), Prov. Rio de Janeiro, Porto Real (Leyden Museum), Porto Alegre (Winge), and Prov. Rio Grande do Sul (Hensel).




A. J. J. Wendel del. et lith. P. W. M. Trap impr.

1— 5. Dactylomys dactylinus *E. G. St. Hilaire.*
6—11. Kannabateomys amblyonyx *Natterer.*
2. Upper molar series.
3 and 9. Lower molar series.
4 and 10. Right upper molar series, enlarged.
5 and 11. Right lower molar series, enlarged.